

containing 0.9 M NaCl, 0.12 M Tris-HCl, 6mM EDTA, 0.1M sodium phosphate buffer, 0.1% SDS and 0.1% polyvinylpyrrolidone,
followed by three 15-minute washes at 40°-65 °C to remove unbound probes in a solution at pH 7, containing 0.075 M NaCl, 0.0075 M Na Citrate and 0.1% SDS.

48. (TWICE AMENDED) An isolated nucleic acid molecule consisting of
SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6,
or an RNA equivalent thereof,
or a nucleic acid complementary to said isolated molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,
or a nucleic acid substantially complementary to said isolated molecule which is capable of hybridizing to the nucleic acid molecule under the following stringent conditions:
hybridization at 40°-65 °C for 14-16 hours in a hybridization solution at pH 7.8, containing 0.9 M NaCl, 0.12 M Tris-HCl, 6mM EDTA, 0.1M sodium phosphate buffer, 0.1% SDS and 0.1% polyvinylpyrrolidone,
followed by three 15-minute washes at 40°-65 °C to remove unbound probes in a solution at pH 7, containing 0.075 M NaCl, 0.0075 M Na Citrate and 0.1% SDS.

52. (AMENDED) The isolated nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO: 6.

Please add new claims 53-58 as follows:

53. (NEW) An isolated nucleic acid molecule comprising a nucleotide sequence of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6,
or an RNA equivalent thereof,
or a nucleic acid complementary to said isolated molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules.

54. (NEW) An isolated nucleic acid molecule consisting of a nucleotide sequence of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5 or SEQ ID NO: 6 or an RNA equivalent thereof.

55. (NEW) A probe which

a) targets *Shigella flexneri* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

b) targets *Shigella sonnei* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

c) targets *Shigella dysenteriae* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

or

d) targets *Shigella boydii* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules.

56. (NEW) A probe which

a) targets *Shigella flexneri* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid

complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

b) targets *Shigella sonnei* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

c) targets *Shigella dysenteriae* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

or

d) targets *Shigella boydii* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules.

57. (NEW) A probe as in claim 55 which comprises 15-25 bases in length.

58. (NEW) A probe as in claim 56 which comprises 15-25 bases in length.

REMARKS

Claim Amendments

The amendments to claims 47 and 48 delete the terms "as set forth" and "essentially" which were objected to. The phrase, "as set forth" was used to encompass molecules that comprise the complete sequences of SEQ ID NOS. 3, 4, 5 or 6 as well as fragments thereof used